

DESCRIPTION OF PLATE XXVIII.

- Fig. 1. *Astropecten Andersoni*, n. sp. Abactinal aspect, magnified $1\frac{1}{2}$ diameters.
2. " " Actinal aspect, magnified $1\frac{1}{2}$ diameters.
3. " " A portion of the abactinal surface, magnified 15 diameters.
4. " " Adambulacral and infero-marginal plates, magnified 8 diameters.
5. *Astropecten notograptus*, n. sp. Abactinal aspect, magnified 3 diameters.
6. " " Actinal aspect, magnified 3 diameters.
7. " " A portion of the abactinal surface, magnified 40 diameters.
8. " " Adambulacral and infero-marginal plates, magnified 14 diameters.
9. *Nepanthia suffarcinata*, n. sp. Abactinal aspect, magnified $1\frac{1}{2}$ diameters.
10. " " Actinal aspect, magnified $1\frac{1}{2}$ diameters.
11. " " A portion of the abactinal surface, magnified 15 diameters.
12. " " Adambulacral plates and adjacent portion of the actinal surface, magnified 15 diameters.

Report on the Mammals, Reptiles, and Batrachians, chiefly from the Mergui Archipelago, collected for the Trustees of the Indian Museum. By JOHN ANDERSON, M.D., LL.D., F.R.S., F.L.S., F.Z.S., &c.

[Read 20th June, 1889.]

As the object of the Expedition sent by the Indian Museum to Mergui was to bring together materials for the illustration of the marine fauna of that portion of the Bay of Bengal, it was impossible to undertake a systematic investigation of the vertebrate fauna of the islands themselves.

A small collection, however, of Mammals, Reptiles, and Batrachians was formed, and it is now proposed to place the names of the species on record. The Mammalia number 23, the Reptilia 53, and the Batrachia 12 species.

Among the five species of bats represented in the collection, *Emballonura semicaudata* is new to the Malayan Peninsula; while another, *Pteropus edulis*, is also an addition to the fauna of the Mergui district. A large bat, probably this species, occurs likewise on the islands in the neighbourhood of Sullivan or Lampi Island to the south.

A race of *Sus scrofa* is the mammal most generally distributed over the Archipelago. It is found on all the large islands, and on islands not over a square mile in extent. It is known to occur as far west as the Elphinstone group to the north, and Clara Island to the south, these two localities, with King Island and Mergui, being the northern and southern limits of my observations. Whether this animal extends to the most westerly chain of islands, stretching from Tenasserim island in the north to Great Western Torres in the south, has not been ascertained, as these islands have not been explored.

Tragulus Kanchil is another feature of the Archipelago, and is almost as widely distributed as the pig. On Elphinstone Island it was nearly as numerous as on King Island and at Mergui, where the undergrowth of the forest is alive with it at sundown.

After these two species, the squirrels, *Sciurus caniceps* and *S. bicolor*, are the mammals most commonly seen.

Arctogale leucotis occurs on King, Owen, and Sullivan Islands, thus rendering it probable that it has a wide distribution over the Archipelago. *Paradoxurus hermaphroditus*, on the other hand, was only observed on King Island.

The two monkeys found on the islands are *Semnopithecus obscurus* and *Macacus cynomolgus*; the former being the more widely distributed, while the latter seems to be more confined to the islands near the mainland, where mud-banks are exposed at low water, the food of this monkey consisting largely of Crustacea found in such situations.

Tupaia ferruginea is very abundant in the neighbourhood of the few villages on the banks of a creek at the head of the bay, on the north-eastern side of King Island. It was also met with on a recent clearing made by some Selungs in the centre of the island, and again on Elphinstone and Sullivan Islands.

The only locality in which I observed the nocturnal *Nycticebus tardigradus* was King Island, an island intimately linked to the mainland by a succession of islets separated from each other by narrow channels.

The tiger is found on all the large islands close to the mainland, its most western range being King and Domel Islands; and on the former it is said to be so numerous and aggressive, that the few villagers, on the eastern side, seldom venture into the forest; and at the village of Taing, at the head of the creek already mentioned, it is unsafe to penetrate into the jungle, as the Burmese and Karens settled there wage war on the animal by setting formidable dart- or spear-traps, the triggers of which, so to speak, are thread-like fibres stretched across the runs of wild animals, and, if broken through, entail almost certain death. The tiger, however, is unknown on such western islands as the Elphinstone and Grant groups, and on Sullivan Island, 70 miles to the south and distant about 10 miles from the coast; but it occurs on Campbell and Forbes Islands to the south of Kisseraing, the former being separated from the mainland by a channel only one mile in width, whereas the latter is eight miles in breadth, but linked to the coast by two small intermediate islands, the widest sea-passage being three miles.

Both elephants and rhinoceroses find their way on to the island of Kisseraing; but the former are unknown on any of the other islands. The latter, however, I was informed by Mr. Leslie, of the Maleewon Police, whose duties frequently took him past Campbell and Forbes Islands, occurred on those islands; but whether *Rhinoceros sondaicus*, the dried hide of which is sold in Mergui bazaars for food, or a two-horned species, he could not say. He also told me that he had once met a two-horned rhinoceros swimming in the sea close to High Island, about twenty miles distant from the mainland, but with islands everywhere in sight.

The names of the less prominent mammals met with are recorded in the accompanying list; but all the species, with the exception of the two bats already mentioned and *Rhizomys erythrognys*, are well-known forms on the neighbouring mainland.

One of the features of the Reptilian fauna of the Archipelago is the occurrence of *Crocodilus porosus* in the neighbourhood of almost every island of any size, at least within the area that came under my observation. The great bay on the eastern side of King Island is fringed by mangrove swamps, through which some small freshwater streams flow. The detritus brought down by these streams has converted the head of the bay into a great mud-bank continuous with the mangrove swamps, and at low water it is an

extensive mud-flat cut up by the narrow channels down which the streams run. Near its seaward extremity there are a few wooded islets, their rocky beaches facing the sea being rich in corals and *Gorgonia*, partially visible at the lowest tides, while their other sides continuous with the mud-flats are covered with stony patches, among which are found brilliantly coloured sponges, *Pennatulidæ* and *Actiniæ* occurring in profusion in the soft deep mud of the great bank. Among these remarkable estuarine conditions this crocodile is frequently seen basking at low water on the banks of the seaward extensions of the streams close to the corals and sponges. On the other hand, it is equally abundant on the rocky shores of Elphinstone, Domel, and Sullivan Islands, all of which are more or less surrounded by coral, washed by the salt sea.

The lizard, *Varanus salvator*, was also met with on all the islands I visited.

Calotes Emma is the tree-lizard most frequently seen on the islands; whereas *C. versicolor* appears to be the species most prevalent at Mergui.

The call of the great gecko, *G. verticillatus*, became a familiar sound to me at night during my sojourn in the Archipelago; and *Hemidactylus frenatus* I found to be common at the village of Taing, on King Island.

Among the shrubs and *Casuarina*-trees fringing in some places the western shore of Sullivan Island, *Draco taniopterus* was not uncommon; and I also found it on Elphinstone Island, and observed it in considerable numbers among the dorian and mangosteen orchards of the eastern side of King Island; but I did not meet with a single specimen of *D. maculatus*, which occurs at Mergui along with the former.

The skink, *Lygosoma maculatum*, is much more prevalent and seemingly more widely distributed than *Mabuia multifasciata*, as it occurs at Mergui, and on King, Elphinstone, and Sullivan Islands, whereas the latter species, which is common at Mergui and on King Island, was not found at Elphinstone Island, and only one specimen was obtained at Sullivan Island.

Five snakes were found on Elphinstone Island, viz. *Composoma melanurum*, *Tropidonotus chrysargus*, *Tragops prasinus*, *Bothrops gramineus*, and *B. purpureus*; whereas on the much larger King Island, so intimately connected with the mainland, ten species, all distinct from the former, were obtained, viz. *Tropidonotus juncus*,

T. nigrocinctus, *T. trianguligerus*, *Hypsirhina enhydris*, *Hipistes hydrinus*, *Psammodynastes pulverulentus*, *Python reticulatus*, *Naja tripudians*, and *Ophiophagus elaps*—forms all more or less aquatic in their habits; and a *Bothrops*, possibly *B. cantoris* or *B. porphyraceus*, Blyth. Only four species were procured on Sullivan Island, viz. *Tropidonotus junceus*, *Lycodon aulicus*, *Dipsas carinata*, and *Python reticulatus*. Three snakes—*Tragops prasinus*, *Naja tripudians*, and another example of the foregoing unnamed *Bothrops*—were encountered on Kisseraing Island in the course of a few hours, which would seem to indicate that that island is rich in snakes. Of the foregoing serpents, *Tropidonotus chrysargus* and *Dipsas carinata* are apparently new to the Tenasserim province.

The Hydrophids are extensively represented in the harbour of Mergui, which lies on the seaward face of an island formed by two mouths of the Tenasserim river. The mud-flats lying between these two mouths are studded over with extensive fishing-stakes of an ingenious description, into which the shoals of fish, and the Hydrophids that follow them, have their course directed by long lines of palisades terminating towards the sea in a large chamber from which they fail to escape. At low water, from a platform, the fishermen visit the chambers, and ladle out the contents by means of hand-nets. In this way I obtained nine species of Hydrophids, whereas although I had spent some hours almost daily in the sea among the islands, I did not observe a single species of this genus in any of the localities I visited. It is therefore probable that the species obtained at Mergui are more or less estuarine in their habits, and do not select thoroughly marine situations for their feeding-grounds. The nine species were the following, viz. : *H. Jerdoni*, *H. robusta*, *H. latifasciata*, *H. cyanocincta*, *H. gracilis*, *H. stricticollis*, *H. Jayakari*, *H. Hardwickii*, and *Enhydrina valakadyn*. The only two of those species hitherto recorded from Mergui are *H. Jerdoni* and *H. latifasciata*; but besides the nine, *H. nigrocincta*, *H. striatus*, and *H. trachyceps** occur in the strong tide-way of the harbour. *H. Jayakari* is a recently described species from near Muscat †.

Chelone mydas is found among the islands; but the only one

* It is possible that this species described by Theobald may prove to be *H. cyanocincta*.

† Boulenger, Ann. & Mag. Nat. Hist. vol. xx. Dec. 1887, p. 408.

observed by me was a small specimen that had been captured by the Selungs for food.

The only Batrachian worthy of note is the frog, *Rana Doriae*, recently described by Boulenger from North Tenasserim, and of which I obtained twenty specimens on King and Elphinstone Islands; so that it is probably widely distributed over the province of Tenasserim.

MAMMALIA.

Order PRIMATES.

Family CERCOPIITHECIDÆ.

SEMNOPIITHECUS *OBSCURUS*, *Reid*.

1 adult ♂, Elphinstone Island; 2 adults and 1 young ♀, Mergui.

Common in the forests about Mergui and on the islands of the Archipelago, in large parties, including individuals of all ages.

MACACUS *CYNOMOLGUS*, *Schreber*.

1 adult ♂, caught in the fishing-stakes in Mergui harbour.

This species occurs on the Mergui coast and in the forest skirting the banks of tidal streams, where it may be observed at low water on the muddy banks, wandering either alone or in small scattered parties, inserting its arm into holes and burrows in the mud in search of the Crustacea which form part of its food, and which it pulls out and devours. I also saw it in similar situations on the islands near the mainland.

Order PROSIMIÆ.

Family NYCTICEBIDÆ.

NYCTICEBUS *TARDIGRADUS*, *Linn*.

1 adult ♀, King Island.

This belongs to the small and dark variety that occurs in Eastern Bengal (Chittagong), and ranges through Arakan southwards to the extremity of the Malayan peninsula and to some of the neighbouring islands.

Order CHIROPTERA.

Family PTEROPODIDÆ.

PTEROPUS EDULIS, *Geoffroy*.

1 adult ♂, Taing, King Island.

Every evening at sunset numerous large bats, sometimes in great flocks, appeared over the mangosteen, dorian, and areca-palm orchards of the village of Taing, on King Island. The natives asserted that they came from a low-lying densely wooded islet between King Island and Mergui, on the trees of which they hung during the daytime in an immense multitude. The expanded wings of the male measured 5 feet across within a few tenths of an inch. A large *Pteropus* observed by me at Sullivan Island is also probably this species.

It has been found on the Andaman and Nicobar Islands; but this is seemingly the first time that it has been recorded from the province of Tenasserim; it has, however, been found at Klang in the Straits of Malacca*.

Family VESPERTILIONIDÆ.

VESPERUGO PACHYPUS, *Temm.*

3 ♂ and 3 ♀, found in the hollow of an old tree, Taing, King Island.

VESPERTILIO MURICOLA, *Hodgson*.

7 ♂ and 11 ♀, Yimiki, King Island, and 4 ♂ and 7 ♀, Taing, King Island.

The specimens from Taing were found between the leaves of plantain trees.

Family EMBALLONURIDÆ.

EMBALLONURA SEMICAUDATA, *Peale*.

8 ♂ and 6 ♀, Sullivan Island; from a small cave in a cliff on the shore, where it occurred in great numbers.

Until quite recently this species was known only from the Polynesian subregion and Sarawak †; but its presence at Pulo

* Thomas, Proc. Zool. Soc. Lond. 1886, p. 73.

† Dobson, Brit. Assoc. Rep. 1880, p. 193.

Nias has been noticed during the present year by the Marquis Doria*.

Order CARNIVORA.

Family FELIDÆ.

FELIS TIGRIS, *Linn.*

1 adult ♀, Taing, King Island.

Tip of nose to vent 5 feet 4·30 inches; length of tail 2 feet 4·50 inches.

Family VIVERRIDÆ.

PARADOXURUS HERMAPHRODITUS, *Pallas*; *Blanford*, *Fauna of Brit. Ind. &c., Mammalia* (1888), p. 108.

1 ♀ and a ♂ and ♀, King Island †.

One of these females had the following dimensions in life:—

	inches.
Tip of nose to vent.....	22
Length of tail.....	18
" " hind foot	3
Tip of nose to eye	1·70
Eye to ear	1·30

This individual was so dark-coloured, that when describing it immediately after death it was entered in my notes as black; but since then (1882) the fur has assumed a distinct brownish tinge.

The penis of this species is densely covered with small recurved spines.

ARCTOGALE LEUCOTIS, *Blyth*; *Blanford*, *l. c.* p. 115.

1 ♂, King Island.

The dimensions of the living animal were as follows:—

	inches.
Tip of nose to vent	19
Length of tail.....	21
" " hind foot	3·25
Tip of nose to eye	1·70
Eye to ear	1·30

* *Annali del Mus. Civ. di Storia Nat. di Genova*, 1889.

† These are the specimens mentioned by Mr. Blanford, *Proc. Zool. Soc. Lond.* 1885, p. 791.

The general colour was fulvous grey. A feeble line down the back, the muzzle, a spot behind the ear, the feet, and the tip of the tail were brown.

I also observed it on Owen and Sullivan Islands.

Order INSECTIVORA.

Family TUPAIIDÆ.

TUPAIA FERRUGINEA, *Raffles*; *Blanford, Fauna of Brit. Ind.* (1888), p. 210.

1 ♂, Mergui; 4 King Island; and 1 Elphinstone Island.

Order RODENTIA.

Family SCIURIDÆ.

PTEROMYS ORAL, *Tickell*; *Anderson, An. Zool. Res.* 1878, p. 279.

1 ♂ adult, Mergui; 1 juv., Sullivan Island (January).

The adult closely resembles an example (B.M. Register, No. 84. 7. 30. 1) of *P. oral* from the Nilgiris in the British Museum, and another in the same collection (Reg. No. 45. 8. 12. 8) from Travancore, and a third (Reg. No. 65. 5. 20. 2) from an elevation of 4500 to 5000 feet on the Anamallies, but differs from them in the trifling detail of having the latter half of its tail nearly white instead of black. In the British Museum there is a specimen (Reg. No. 85. 8. 1. 125) obtained by Mr. Davison at Kankaryit in Tenasserim* corresponding to *P. cineraceus*, Blyth; and another † (Reg. No. 88. 8. 1. 124) collected by the same naturalist at Wimpong Thatone, also in Tenasserim, that is intermediate in its coloration between the Mergui and the young individual from Sullivan Island. In the island of Ceylon also, individuals are found resembling the richly coloured variety occurring on the continent, and others that might be referred to *P. cineraceus*. The specimen (77. 3. 14. 11) in the British Museum is an example of the former, and the skin (77. 3. 14. 9) of the latter. Moreover, flying-squirrels of this species well tinged with grey, and in which the chestnut colour of the upper parts is almost absent, are found in the Madras Presidency.

* Thomas, Proc. Zool. Soc. 1886, p. 67.

† Thomas, *ibid.*

SCIURUS CANICEPS, Gray.

2 adult ♂ (January), 1 adult ♀ (January), and 1 ♀ (March), Mergui; 1 adult ♀ (February), King Island; 1 adult ♂ and 2 adult ♀ (March), Elphinstone Island; and 1 ♂ (January), Sullivan Island.

These specimens agree with the squirrels from Mergui described by Blyth as exhibiting "merely a faint mark of ferruginous, and this chiefly on the sides of the neck and body"*

SCIURUS BICOLOR, Sparrm.

1 ♂, Mergui; 2 King Island; and 1 ♂, Elphinstone Island.

SCIURUS BERDMOREI, Blyth.

1 ♂ and 1 ♀ (January), King Island.

Measurements of the adult female:—

	inches.
Tip of nose to vent	8·20
Length of tail	5·20
,, ,, hind foot.....	1·80
Nose to eye	1
Eye to ear.....	0·50

General colour reddish brown above, punctulated with yellow; under surface pale yellow, but more or less white on the mesial line and on the chin, but brighter yellow on the front margins of the thighs. The eyelids yellowish white. Two yellowish bands along the sides, the lower band being the broader, and separated from its fellow by a broad brownish-black band, the upper pale line being similarly bordered above. A mesial black band on the back. The tail bushy; the hairs black at the bases, succeeded by two alternate yellow and black bands, the terminal black band more or less tipped with white.

Family MURIDÆ.

MUS RUFESCENS, Gray.

2 Mergui, and 4 King Island.

This rat is very common at Mergui; the native craft, which I hired to take me among the islands, and on which I lived for nearly three months, was infested by it to an intolerable extent.

* Journ. As. Soc. Beng. vol. xxiv. (1855), p. 475.

MUS CONCOLOR, *Blyth*.

7 ♂ and 5 ♀, Mergui; and 1 ♂, King Island

This is the common house-mouse at Mergui and in the village of Taing, King Island.

MUS (NESOKIA) BENGALENSIS, *Gray*.

7, Mergui.

Common in the gardens and in the houses.

Theobald appears to have been the first to point out the presence of this rat in Burma*.

Family SPALACIDÆ.

RHIZOMYS ERYTHROGENYS, *Anderson*.

1 ♂ and 1 ♀, Mergui (January).

These specimens exactly resemble the types from the hill-tracts of the Salween river, in British territory, obtained in the month of June.

Family HYSTRICIDÆ.

ATHERURA FASCICULATA, *Shaw*.

1 ♂, 1 ♀, King Island.

Order UNGULATA.

Family SUIDÆ.

SUS SCROFA, *Linn*.

3 ♀, King Island.

The wild pig of the Archipelago is in all likelihood identical with the race found on the mainland, which Blyth, in 1863 †, considered to be distinct from the race inhabiting India. This point, however, has yet to be decided, as the three foregoing specimens are unfortunately comparatively young animals, and moreover all of one sex.

This species is the most numerous and widely spread mammal in the Archipelago.

Family TRAGULIDÆ.

TRAGULUS KANCHIL, *Raffles*.

1 ♀ and juv., Mergui; 2 ♂ and 2 ♀, King Island; 1 ♂ and 1 ♀, Elphinstone Island.

* Proc. As. Soc. Beng. 1866, p. 240.

† Cat. Mam. Mus. As. Soc. 1863, p. 141.

Order EDENTATA.

Family MANIDIDÆ.

MANIS JAVANICA, *Desm.*

1 King Island.

REPTILIA.

Order EMYDOSAURIA.

Family CROCODILIDÆ.

CROCODILUS POROSUS, *Schneider.*

1 Mergui.

Order CHELONIA.

Family TESTUDINIDÆ.

CYCLEMYS DHOR, *Gray; Boulenger, Cat. Chel. &c. B. M. 1889,*
p. 130.

3 from a freshwater stream, Tibu, King Island.

These examples of this species illustrate what takes place in the formation of the hinge between the hyo- and the hypoplastra. In one specimen, measuring 5·31 inches in length, the abdominal plates, in their anterior thirds, almost completely overlap the suture between these bones, the position of which, however, can be detected by the presence of a transverse groove or depression running across the plates; whereas in the other two specimens, measuring respectively 7·28 inches and 7·48 inches in length, a portion of the abdominal plates has become cut across by the functional activity of the joint, and exists as a little plate between the pectorals and abdominals.

Family TRIONYCHIDÆ.

TRIONYX SUBPLANUS, *Geoff.*

3 young specimens, freshwater streams, Tibu, King Island.

Family CHELONIDÆ.

CHELONE MYDAS, *Linn.*

1 Ross Island.

Order LACERTILIA.

Family GECKONIDÆ.

HEMIDACTYLUS FRENATUS, *Schlegel*.

5 Mergui, and 6 Taing, King Island.

HEMIDACTYLUS GARNOTII, *Dum. & Bibr.*

3 Taing, King Island.

GEHYRA MUTILATA, *Wieg.*

1 Mergui; 1 King Island; and 1 Sullivan Island.

The specimen from the last-mentioned locality was found on rocks by the sea-shore.

GECKO VERTICILLATUS, *Laur.*

10 Mergui.

Common in the Archipelago.

Family AGAMIDÆ.

DRACO TÆNIOPTERUS, *Günther*.

3 Mergui; 19 King Island; and 1 Elphinstone Island.

DRACO MACULATUS, *Gray*.

3 Mergui.

ACANTHOSAURA ARMATA, *Gray*.

1 Sullivan Island.

Found on swampy low-lying land on which *Nipa fruticans* was growing.

ACANTHOSAURA CRUCIGERA, *Boulenger*.

1 female, Yimiki, King Island.

Near a stream in an old clearing in the forest.

CALOTES VERSICOLOR, *Daud.*

17 Mergui; and 1 Yimiki, King Island.

CALOTES EMMA, *Gray*.

3 Mergui; 13 Taing, King Island; 5 Elphinstone Island; and 3 Sullivan Island.

Family VARANIDÆ.

VARANUS SALVATOR, *Laur.*

2 Sullivan Island; 1 King Island; 1 Elphinstone Island.

One of these specimens was captured from my boat, in the hollow stem of an old mangrove-tree up which the tide had risen

3 or 4 feet. The Selungs assert that this lizard devours their dead, as they do not bury, but expose their deceased relatives and friends on platforms in the recesses of the forest; and one man informed me that he had seen as many as fifteen lizards engaged on a ghastly meal of this kind.

VARANUS NEBULOSUS, *Gray*.

1 King Island.

Family SCINCIDÆ.

MABUIA MULTIFASCIATA, *Kuhl*.

2 Mergui; 6 Taing and Yimiki, King Island; and 1 Sullivan Island.

This lizard, although only one specimen was obtained, was common in a swamp on Sullivan Island, at the mouth of a small freshwater stream covered with little eminences on which *Nipa fructicans* was growing. Among the palms, that curious crustacean *Thalassina anomala* had thrown up the great mud mounds that occur over its underground chambers. They were strewn with the fallen leaves of the palm, and were more or less riddled with holes made by the crustacean, the eminences being converted into islets at high tide. In this locality this skink lay basking in the early morning sun, and when disturbed retreated either under the decaying vegetation or into the holes on the slopes of the mounds.

LYGOSOMA MACULATUM, *Blyth*.

6 Mergui; 12 Taing, Thapo, and Yimiki, King Island; 9 Elphinstone Island; and 1 Sullivan Island.

Common in the northern part of the Archipelago, but seemingly rare in the south. The specimen procured at Sullivan Island was found in the partially dry bed of a freshwater stream.

LYGOSOMA OLIVACEUM, *Gray*.

1 Taing, King Island.

LYGOSOMA ALBOPUNCTATUM, *Gray*.

1 Mergui; 1 Elphinstone Island; and 1 Sullivan Island.

Order OPHIDIA.

Family XENOPELTIDÆ.

XENOPELTIS UNICOLOR, *Reinw*.

1 Mergui.

Family OLIGODONTIDÆ.

SIMOTES BICATENATUS, *Günther*.

1 Rangoon.

SIMOTES TRINOTATUS, *Dum. & Bibr.*

1 Tavoy.

Family COLUBRIDÆ.

COMPSOSOMA RADIATUM, *Reinw.*

3 Mergui.

COMPSOSOMA MELANURUM, *Schlegel*.

1 Elphinstone Island.

PTYAS KORROS, *Reinw.*

1 Mergui.

TROPIDONOTUS SUBMINIATUS, *Reinw.*

3 Mergui.

TROPIDONOTUS JUNCEUS, *Cantor*.

1 Yimiki, King Island; 4 Sullivan Island, at 1300 feet.

TROPIDONOTUS NIGROCINCTUS, *Blyth*.

1 King Island.

TROPIDONOTUS TRIANGULIGERUS, *Reinw.*

3 Taing, King Island.

Stoliczka, in 1871, described a snake from the hills between Proma and Pegu under the name of *T. bellulus**. The description, however, was "taken from a rather young specimen measuring only 16½ inches;" the coloration and several points in its structure resembled Schlegel's figure of *T. trianguligerus*, but differed from it in "the much more elongated shape of the vertical, larger occipitals, only one anterior temporal, generally smaller and narrower scales, and by the yellow and black bars at the side of the body being differently shaped." In the foregoing specimens the postoculars vary from 3 to 4, and the temporals from 2+3 to 1+3. In view of the uncertainty which Stoliczka expressed regarding *T. bellulus*, it is desirable that it should be compared with undoubted examples of *T. trianguligerus*.

* Journ. As. Soc. Beng. vol. xl. pt. ii. p 432, pl. xxvi. fig. 2.

TROPIDONOTUS CHRYSARGUS, *Schlegel*.

3 Minthantoung, near Mergui; 2 Elphinstone Island.

These snakes have been compared with a specimen in the British Museum identified as this species, and have been found to agree with it. Up till now, Perak has been the most northern known limit of the species on record.

TROPIDONOTUS PUNCTULATUS, *Günther*.

1 Mergui.

Hitherto recorded only from Pegu.

Family HOMALOPSIDÆ.

CERBERUS RHYNCHOPS, *Schneider*.

2 Mergui.

Found in the fishing-stakes along with Hydrophids.

In one specimen the nasals on the right side are so confluent that the nostrils appear to be situated almost in the centre of a single shield.

HYPsirHINA ENHYDRIS, *Schneider*.

2 Taing, King Island.

These are referable to the variety *trilineata*, Gray.

HIPISTES HYDRINUS, *Cantor*.

1 Mergui; 1 King Island.

Both from the sea, but near freshwater streams.

Family PSAMMOPHIDÆ.

PSAMMODYNASTES PULVERULENTUS, *Boie*.

1 Mergui; 1 King Island.

Family DENDROPHIDÆ.

DENDROPHIS CAUDOLINEATA, *Gray*.

1 Mergui.

CHRYSOPELEA ORNATA, *Shaw*.

Common at Mergui, but not observed on the islands.

Family DRYIOPHIDÆ.

TRAGÖPS PRASINUS, *Reinw*.

3 Mergui; 1 Kisseraing Island; 3 Elphiustone Island.

Family LYCODONTIDÆ.

LYCODON AULICUS, *Linn.*

2 Mergui; 1 Sullivan Island.

Family DIPSADIDÆ.

DIPSAS CARINATA, *Reinw.*

1 Sullivan Island.

Recorded from Java and Cochin China.

Family PYTHONIDÆ.

PYTHON RETICULATUS, *Schneider.*

1 King Island; 1 Sullivan Island.

Family ELAPIDÆ.

NAJA TRIPUDIANS, *Linn.*

Common at Mergui, King, and Kisseraing Islands.

It belongs to the variety in which the hood has an oval mark with a dark centre.

OPHIOPHAGUS ELAPS, *Schlegel.*

1 King Island.

On my way across King Island, from Kabeng-khyoung to the west coast, a Karen had laid out in front of his house for my inspection a specimen of this snake he had killed in the morning. I measured it, and found it to be 14 feet 6 inches in length, which is probably the largest measurement on record of a poisonous snake.

Family HYDROPHIDÆ.

HYDROPHIS JERDONI, *Günther.*

3 from the fishing-stakes at Mergui; 1 caught at sea, seven miles from land.

HYDROPHIS ROBUSTA, *Günther, Rept. Brit. India, 1864, p. 364.*—Hydrophis Bishopii, *Murray, Vert. Zool. of Sind, 1884, p. 391, pl. xii.*

2 from the fishing-stakes at Mergui.

One of these specimens measures 5 feet 5.50 inches in length, and is marked with forty-six narrow black rings. With this exception and the greater number of ventrals (333), this specimen agrees in every other detail with the types of the species in the British Museum.

HYDROPHIS CYANOCINCTA, *Daud.*

7 from the fishing-stakes at Mergui.

HYDROPHIS GRACILIS, *Shaw, Günther, l. c. p. 373.*—*H. Guentheri, Murray, l. c. p. 396, pl. xiii.*

1 from the fishing-stakes at Mergui.

This species is easily recognized from the other non-imbricate scaled forms with long narrow necks, by its two large temporals along the side of the occipital and by its divided ventrals. The little shields in this specimen number 283, and are strongly tubercular. There are twenty-one rows of scales around the neck.

HYDROPHIS JAYAKABI, Boulenger, Ann. & Mag. Nat. Hist. ser. 5, vol. xx. (Dec. 1887), p. 408.

1 from the fishing-stakes at Mergui.

This species is allied to *H. ornata*, Gray, but is quite distinct from it.

It is an addition to the Hydrophids of the Mergui coast. The single type, in the British Museum, as already stated, was obtained near Muscat, Arabia.

HYDROPHIS HARDWICKII, Gray.

13 from the fishing-stakes at Mergui.

The scales round the neck vary from 27 to 30; and the longitudinal series from the throat to the vent vary from 135 to 197. Two specimens have two postoculars, and three have two postoculars on one side and one on the other. Eight rows of the ventral scales, in two of the specimens, are strongly spined, each scale bearing a powerful spine about $\frac{1}{10}$ of an inch in length; and in three specimens the other body-scales are sharply spined, and the head finely tubercular. All these specimens are males. A female has only feeble tubercles on the ventral scales, while the scales external to them are still less feebly tubercular. They have been compared with the types in the British Museum.

ENHYDRINA VALAKADYN, Boie.

18 from the fishing-stakes at Mergui.

Family VIPERIDÆ.

BOTHRUPS GRAMINEUS, Shaw.

1 Kisseraing Island, and 1 Elphinstone Island.

These specimens were found in dense shade, lying on rocks by the sides of waterfalls.

Besides the last-mentioned *Bothrops*, I obtained on Kisseraing and Elphinstone Islands two specimens of another species of this genus which I hesitate to name until they have been compared with the types of certain species in the India Museum, Calcutta. They seem to be allied to *B. porphyraceus* and *B. cantoris*, Blyth. I have recently received from Perak another example of the same form.

BATRACHIA.

Order ECAUDATA.

Family RANIDÆ.

OXYGLOSSUS LIMA, *Tschudi*.

1 Mergui.

OXYGLOSSUS LEVIS, *Peters*.

1 Elphinstone Island.

RANA MACRODON, *Kuhl*.

4 Taing, King Island.

RANA GRACILIS, *Wiegman*.

28 Mergui and King Island.

RANA ERYTHRÆA, *Schlegel*.

1 Taing, King Island.

RANA DORIÆ, *Boulenger*, *Ann. del Mus. Civ. di St. Nat. di Genova*, 2 ser. vol. v. 1887, p. 482, pl. xxv. fig. 1.

Four frogs in the British Museum received from Mr. Theobald, and therefore probably from Pegu and Tenasserim, were referred by Mr. Boulenger with some doubt to *Rana modesta**. In the beginning of 1887 I showed the foregoing frogs from King Island and Elphinstone Island to Mr. Boulenger, who at once recognized their similarity to Theobald's four specimens, and expressed the opinion that they seemed to indicate the existence of a hitherto unrecognized species closely allied to *R. modesta*. Subsequent to this the Reptiles and Batrachians collected by M. L. Fea in Northern Tenasserim were placed by the Marquis Doria in Mr. Boulenger's hands for description. Among the frogs there

* *Cat. Batr. Ecaud.* p. 25, specs. *d-g*.

were still more extensive materials justifying the elevation of Theobald's doubtful specimens to a distinct species; and the new form was accordingly described and named *R. Dorica*. It differs from *R. modesta* "in the blunter snout, the lesser difference in length between the first and second fingers, the longer metatarsal tubercle (it does not measure half the length of the inner toe in *R. modesta*), and the absence of vocal sacs."

RHACHOPHORUS MACULATUS, *Gray*.

2 King Island.

Family ENGYSTOMATIDÆ.

MICROHYLA ORNATA, *Dum. & Bibr.*

7 Zediwon and Minthantoung, near Mergui.

Family BUFONIDÆ.

BUFO MELANOSTICTUS, *Schneider*.

Common at Mergui and King Island.

BUFO ASPER, *Gravenh.*

18 Taing, King Island.

BUFO GALERITUS, *Günther*.

1 Tavoy; 1 Elphinstone Island.

These are young specimens; but in their general characters they are so closely allied to this species that I am disposed to regard them as examples of it. Their immaturity, however, renders it difficult to determine them accurately.

Family PELOBATIDÆ.

LEPTOBRACHIUM HASSELTII, *Tschudi*.

1 Sullivan Island.

Found under stones in a stream.
